Liberalisation and Growth in Telecommunications - Hong Kong, China's Experience

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Agenda

- Key Milestones in Liberalisation
  - Independent Regulator
  - Local Fixed Network
  - External Fixed Network
  - Mobile Network
  - Internet Access Service
- Liberalisation Benefited HKC's economy

Background Information about Hong Kong, China

- Special Administrative Region of the People's Republic of China
- Area 1,100 sq km
- Population 6.909 million
- Number of Households 2.237million
- Gross Domestic Product per capita in 2006 – US$ 27,000
- Services constitute about 91% of economy

Key Telecom Statistics

Telephone line density	56% by population
Number of local fixed operators	10
Broadband penetration	75% by households
Mobile penetration	143.4%
Number of mobile operators	5 (four 3G operators)
2.5G/3G customers as a percentage of mobile customers	26
Public Wi-Fi access points	5288
Annual revenue	US$ 6.6 billion (2007)
Annual capital expenditure	US$ 0.8 billion (2007)

Independent Regulator

- Legal basis – Telecommunications Ordinance
- Telecommunications Authority (TA) – Independent regulator empowered by the Ordinance to regulate the telecommunications industry
- 1993
  - Office of the Telecommunications Authority (OFTA) established as the executive arm of the TA
  - paved the way for liberalisation

Liberalisation in Local Fixed Network and Service

1995

- End of domestic telecommunications franchise
- Three new companies licensed
  - New World Telephone Limited
  - New T&T Hong Kong Limited
  - Hutchison Communications Limited

  to compete with the incumbent operator, Hong Kong Telephone Company
- Interconnection rules established

Liberalisation in Local Fixed Network and Service

1997

- Fixed number portability introduced

2000 – further liberalisation

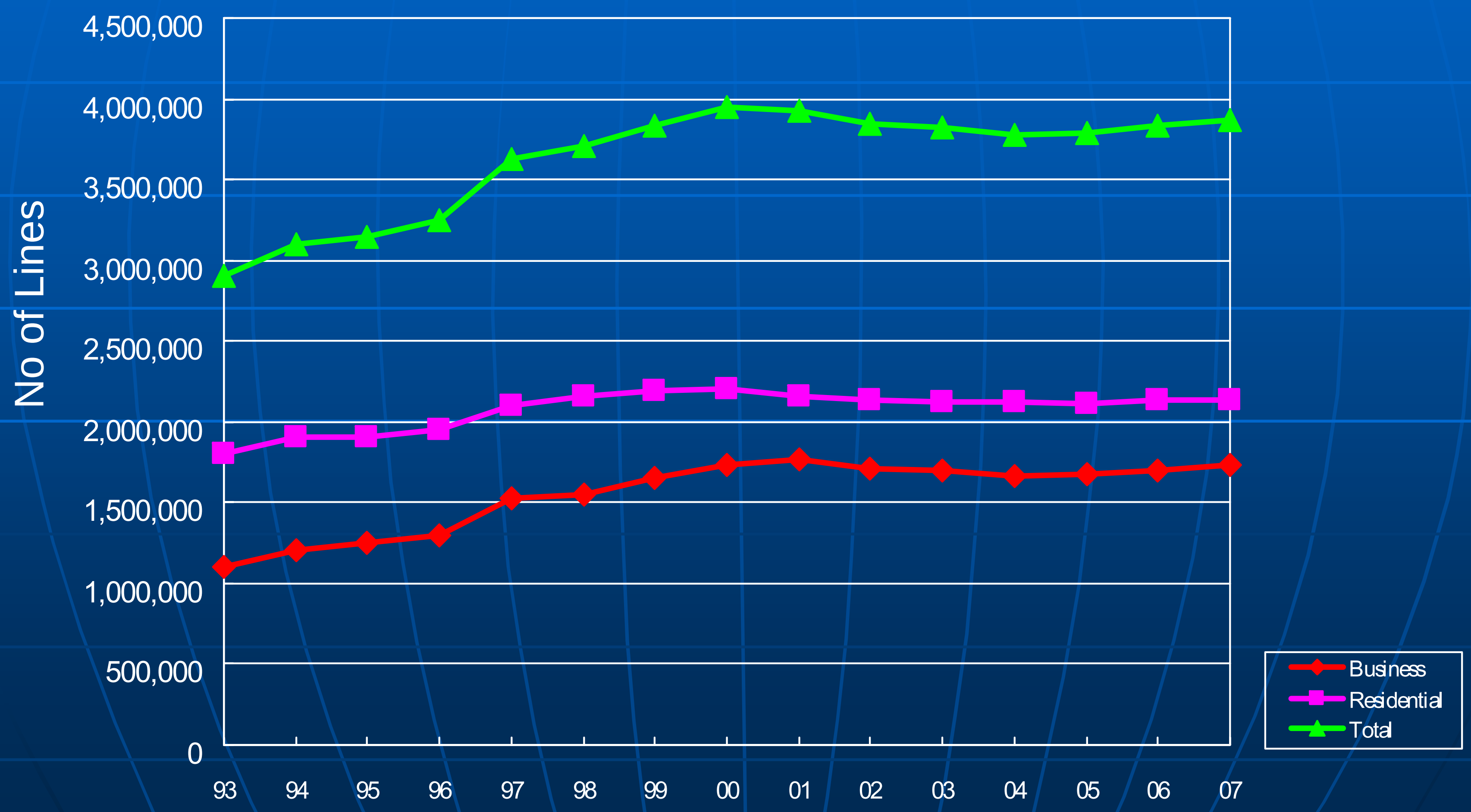
- 5 wireless local fixed networks licensed
- Cable TV operator allowed to provide telephone services

Liberalisation in Local Fixed Network and Service

2003 – fully liberalised

- No limit on number of licences
- Technology neutral
- No restriction on foreign ownership
- Services fully privatised, no government subsidy
- No control on tariffs
- Competition provisions introduced
- Market driven, pro-competition, pro-consumer policy

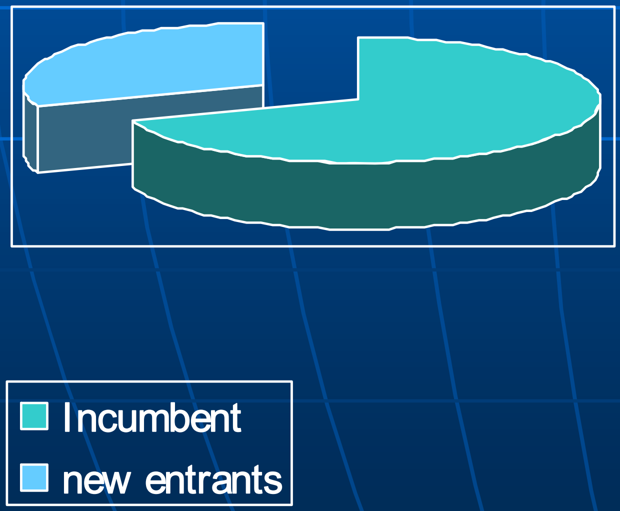
Telephone Lines



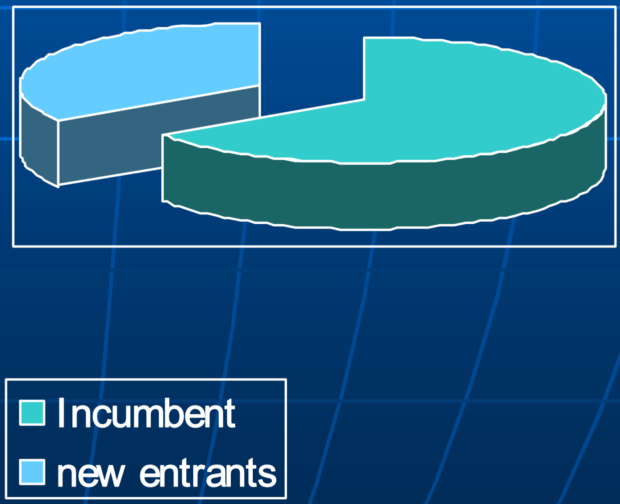
True Competition Developed in Market

Market Share of incumbent in 2006 -2007

Business lines 69.4%



Residential lines 65.9%



Liberalisation of External Network and Service

- Hong Kong Telecommunication International (HKTI) held an exclusive licence for external services in 1990's
- In 1998, HKTI received HK$6.7 billion cash compensation from the government to surrender its exclusive licence, eight years earlier than the scheduled expiry in 2006

Liberalisation of External Network and Service

1999

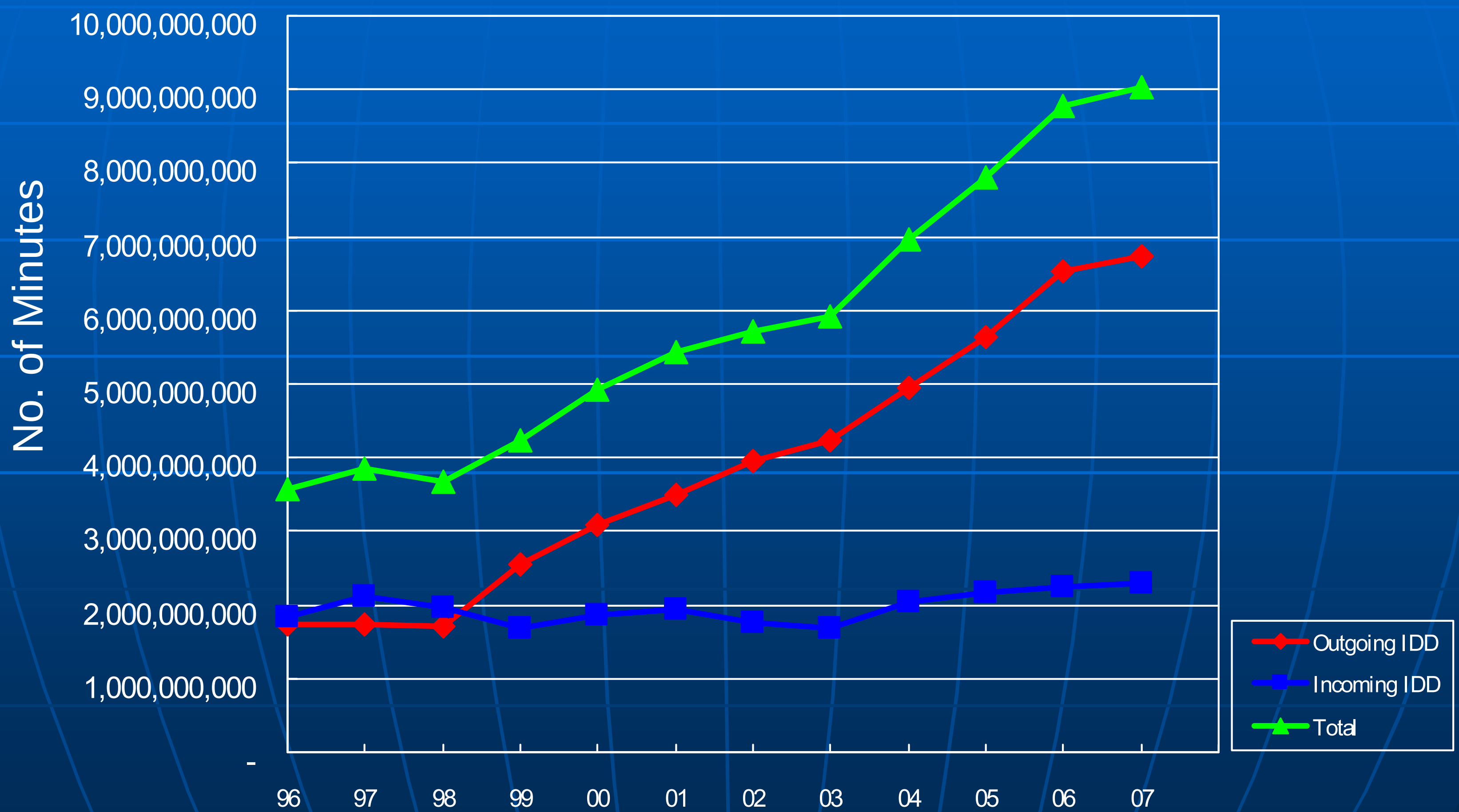
- External service-based competition introduced

2000

- External facilities-based competition introduced

- New Technologies lowered operating cost
- Substantial reduction in IDD tariffs
- No limit on number of operators
- Mandatory interconnection between external and local fixed networks

IDD Traffic



No. of Minutes
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98
99
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01
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04
05
06
07
Outgoing IDD
Incoming IDD
Total

IDD Tariffs

- Liberalisation of external fixed networks/services brought about substantial reduction in IDD tariffs
- In 1999 – 2002 (4 years) alone, estimated consumer saving reached HK$ 25.5 billion (much higher than the compensation granted to the incumbent operator)
- International private leased circuits price also dropped substantially (eg. in 2001, price of IPLC for US/HK dropped by 50%)

Liberalisation in Mobile Network and Services

1984

- First mobile network introduced

1985 – 1989

- Four analogue licences issued, later switched to GSM 900 and CDMA

1996

- Additional 6 licences issued to provide GSM-1800

1999

- Mobile number portability implemented, triggered acute market competition

Liberalisation in Mobile Network and Services

2001

- Four 3G licensed issued through spectrum auctioning; First MVNO licence issued

2007

- One additional licence for CDMA 2000 issued

Now

- 152% subscriber penetration rate

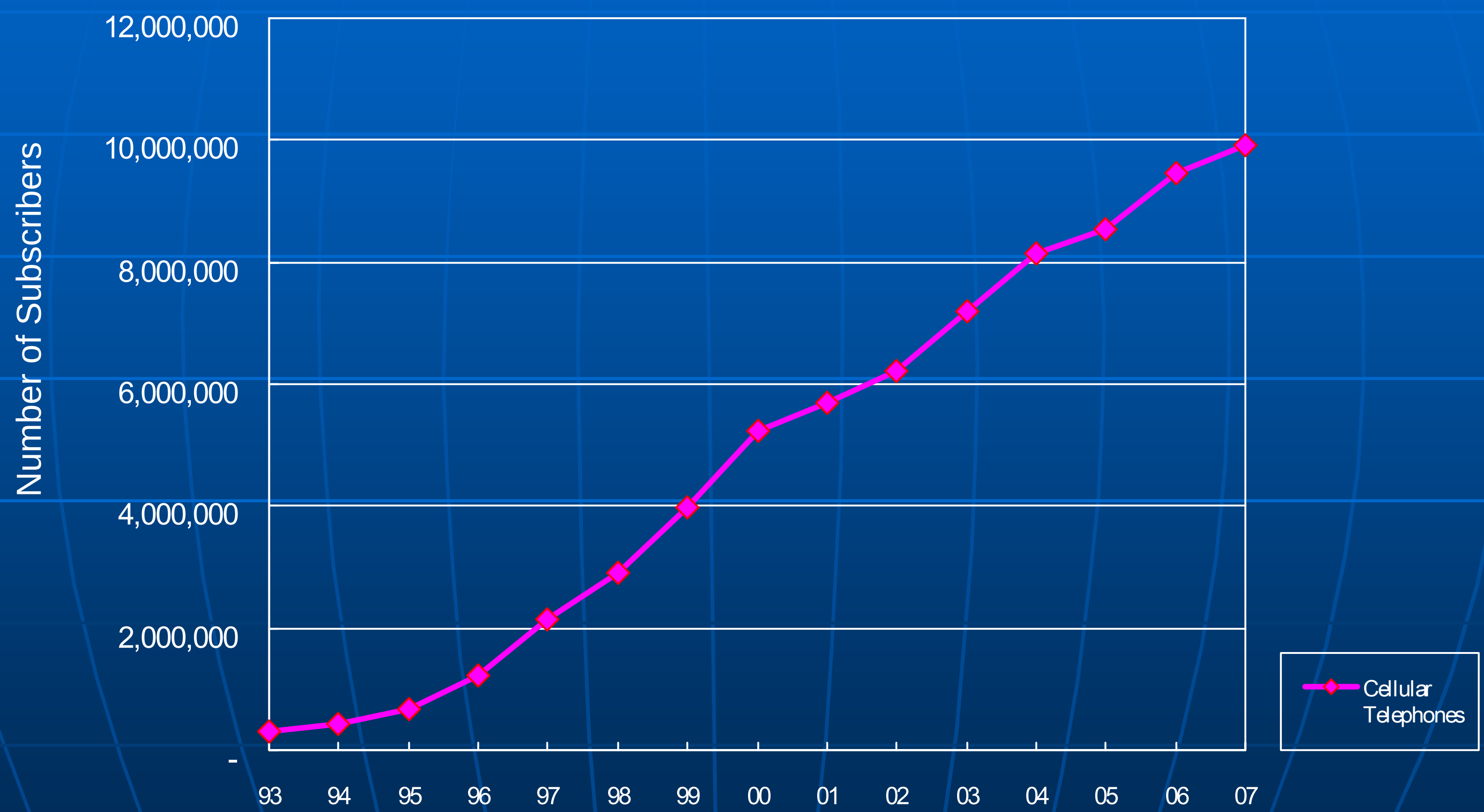
Near future

- Several licences for broadband wireless access to be issued through spectrum auctioning

Liberalisation in Mobile Network and Services

- All liberalisation policies for fixed network apply
- Natural limitation on number of licensees due to limited availability of spectrum
- Spectrum auction - to ensure open, fair and efficient use of spectrum
- Spectrum trading to be considered

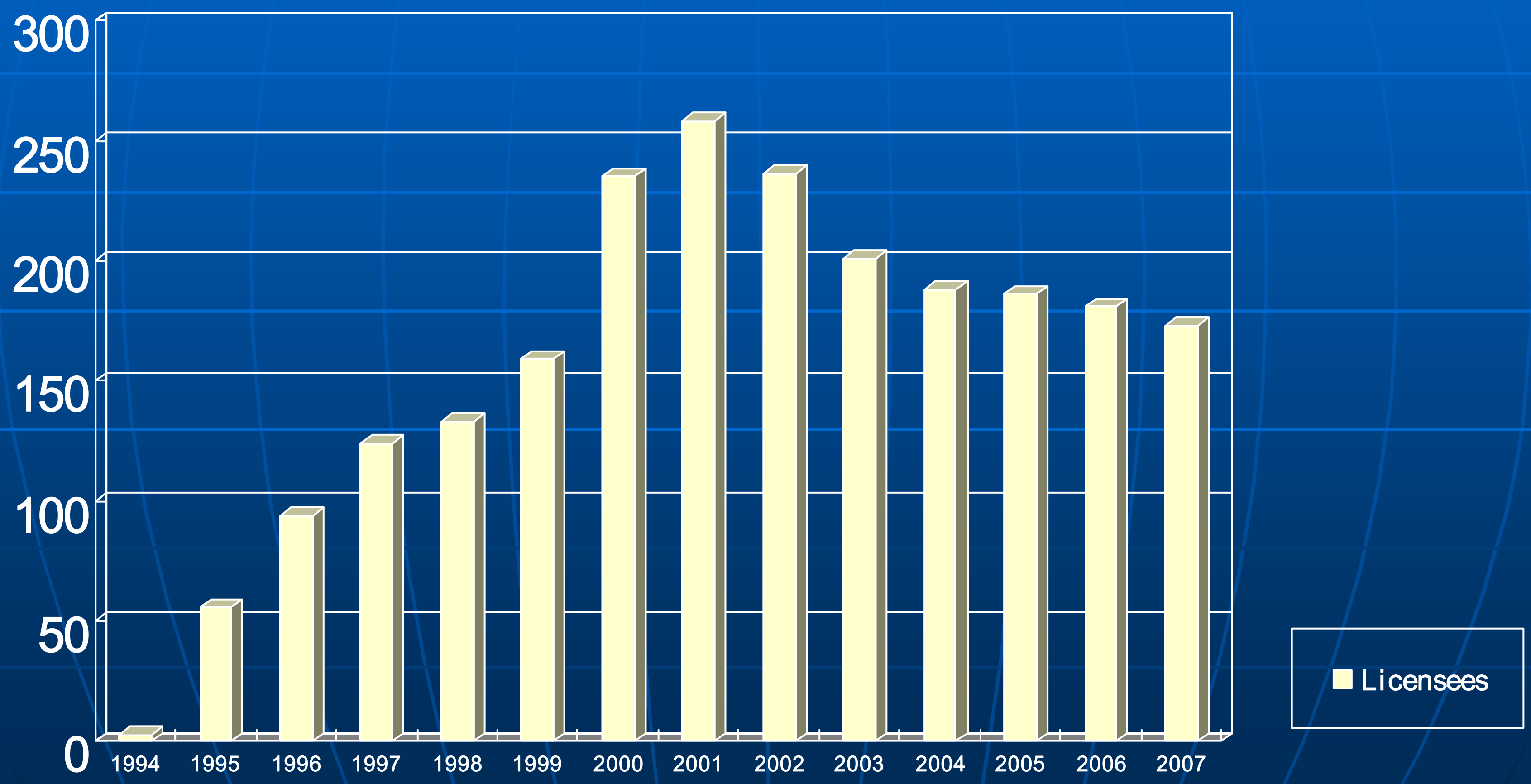
Cellular Telephones



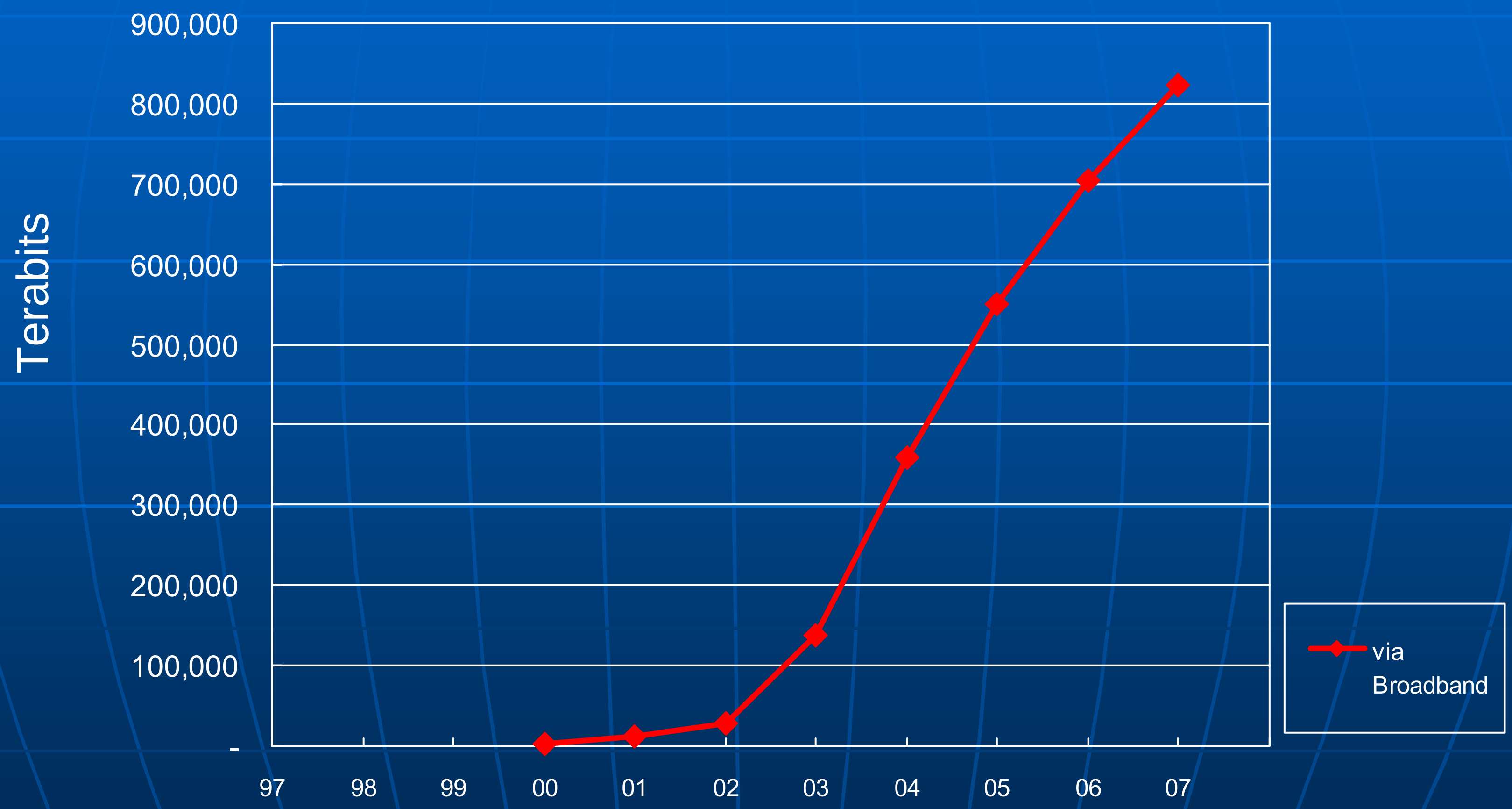
Internet Access Service

- Open to full competition since launched in 1990's
- No/Low market entry barrier
- Low licence fee (HK $750 per year)
- Light-handed regulations

Number of Licensed Internet Service Providers



Internet Traffic Volume
(Customer Access via Broadband Networks)



All Sectors Now Open to Competition

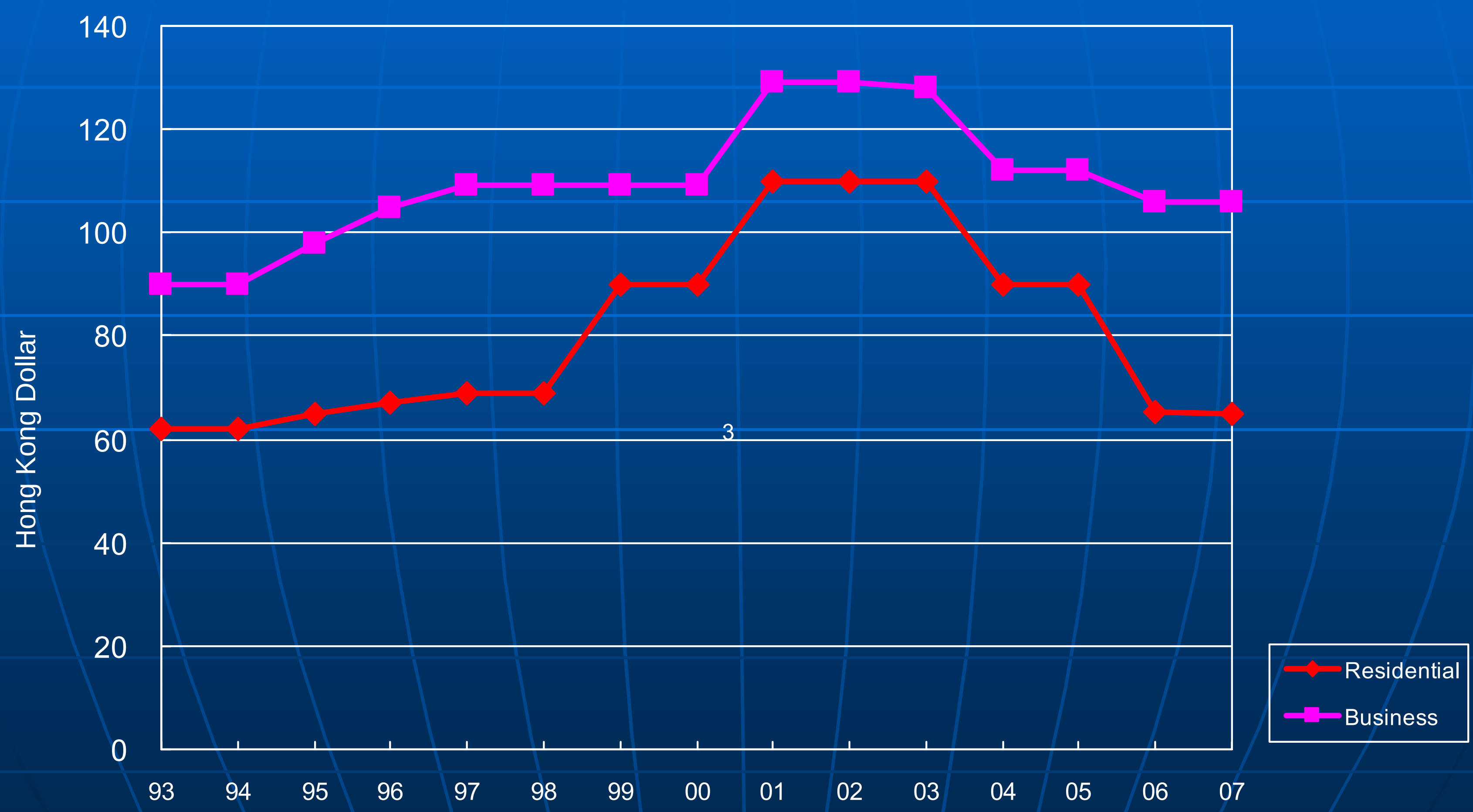
- Paging services – since 1970's
- Value-added services – 1985
- Mobile phone networks and services – 1985
- Local fixed networks and services – 1995
- External services – 1999
- External facilities – 2000

	2002	2003	2004	2005	2006	2007
Wireline-based fixed carriers	7	9	9	10	10	10
Wireless-based fixed carriers	2	2	1	1	1	1
Satellite-based external fixed carriers	5	4	5	6	6	6
Cable-based external fixed carriers	18	18	19	20	21	24
External telecom services operators	213	217	230	226	248	252

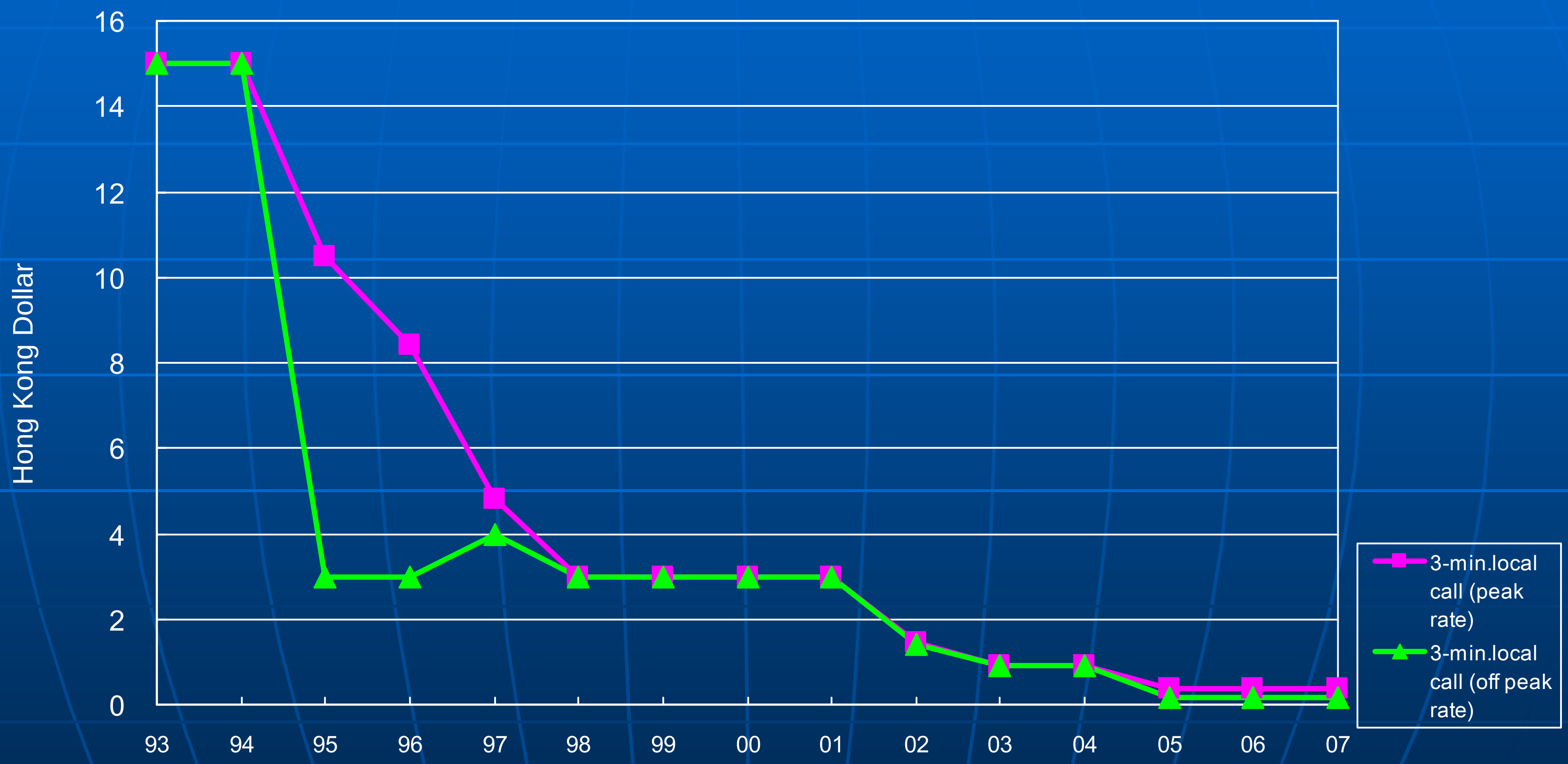
Liberalisation Benefited HKC's Economy

- Consolidated Hong Kong's position as a telecommunications hub in the Asia-Pacific Region
- High quality, low price services enhanced competitive advantages of other sectors
- Reduced cost of telecommunications to business and residential consumers
- Competition drove service innovation, which in turn enhanced productivity (increase in capacity, decrease in unit cost)
- Facilitated the rollout of information infrastructure in Hong Kong

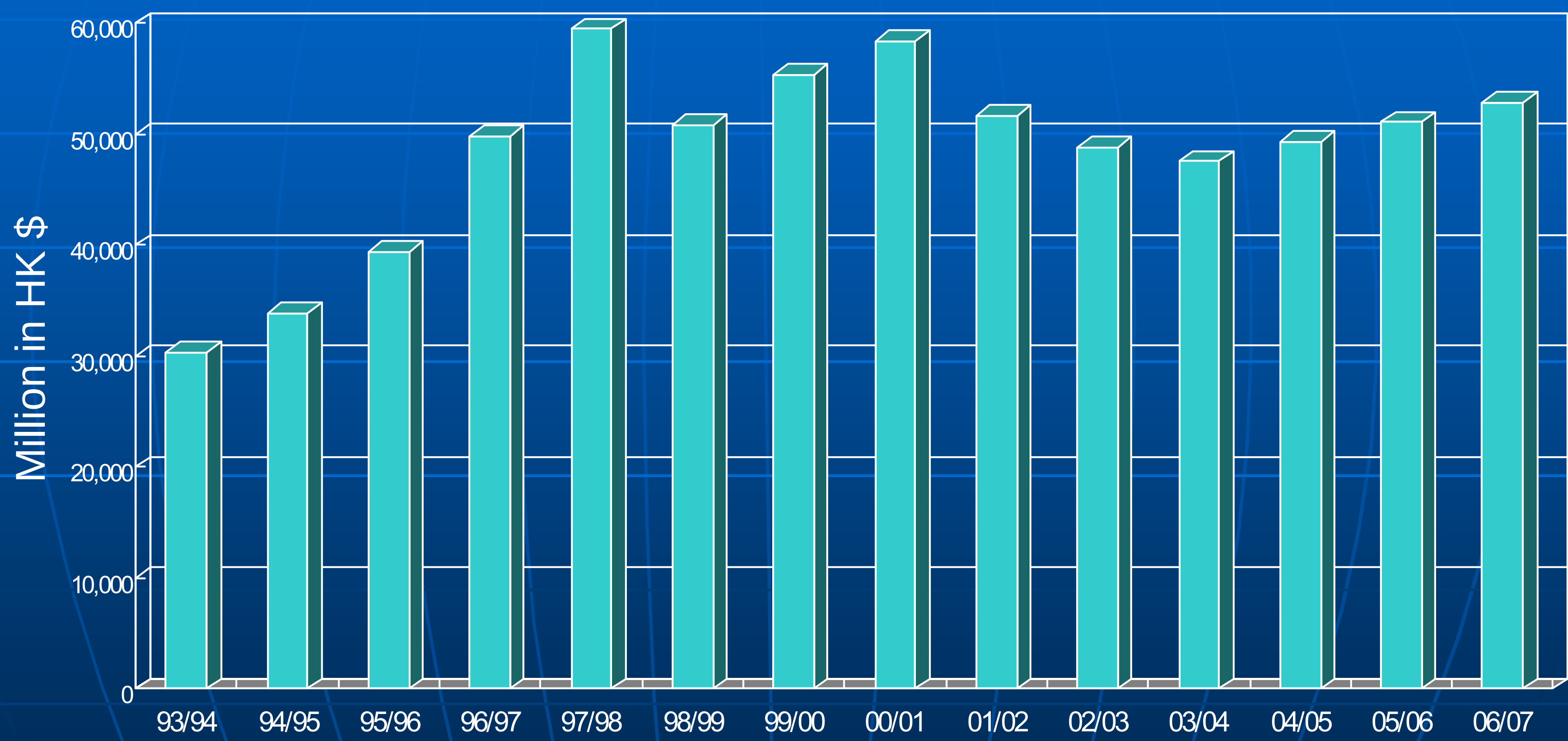
Fixed Line Tariffs
Monthly subscription



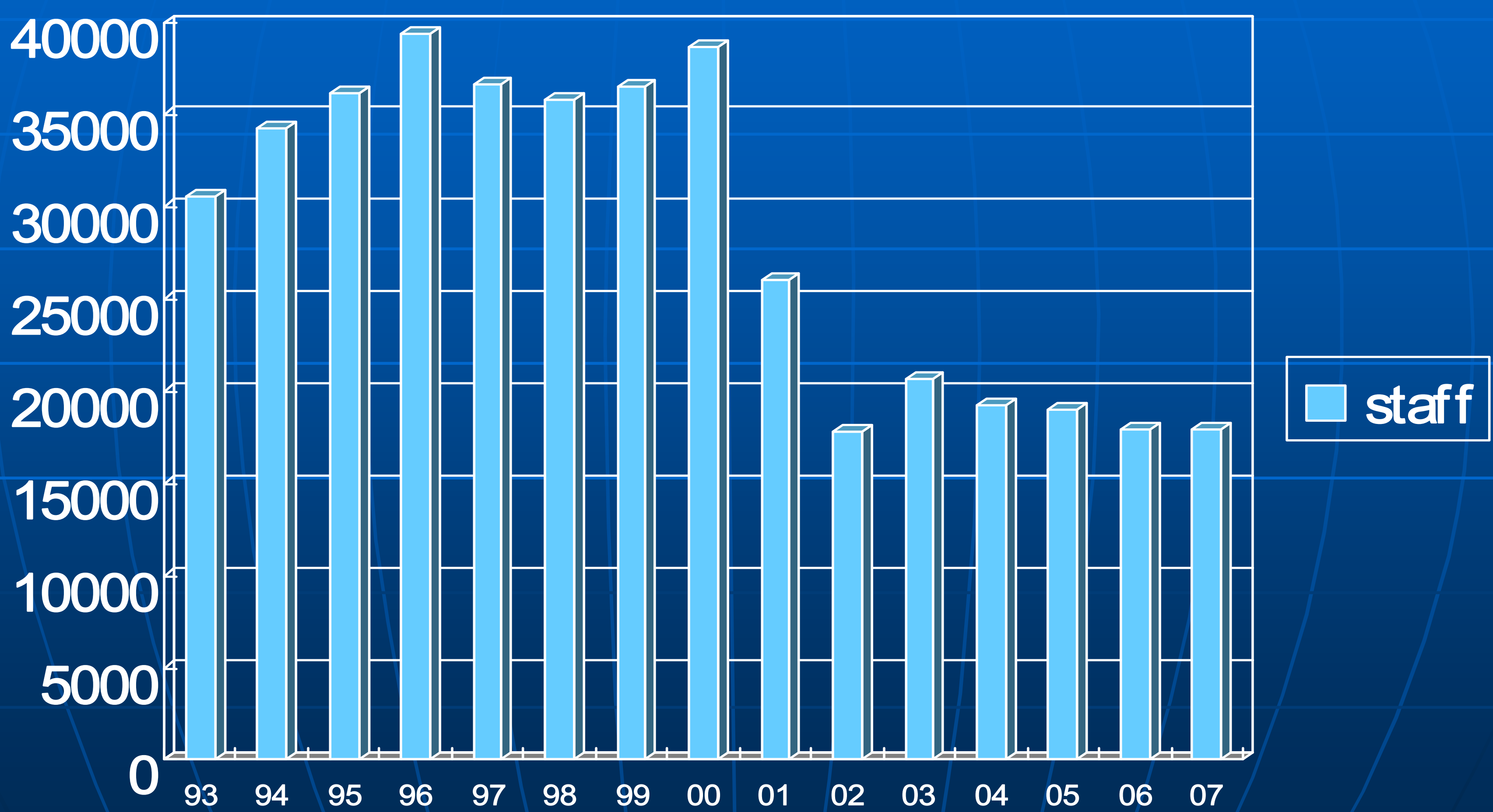
Mobile Services Tariffs (Pre-paid) Local call (peak vs off-peak rate)



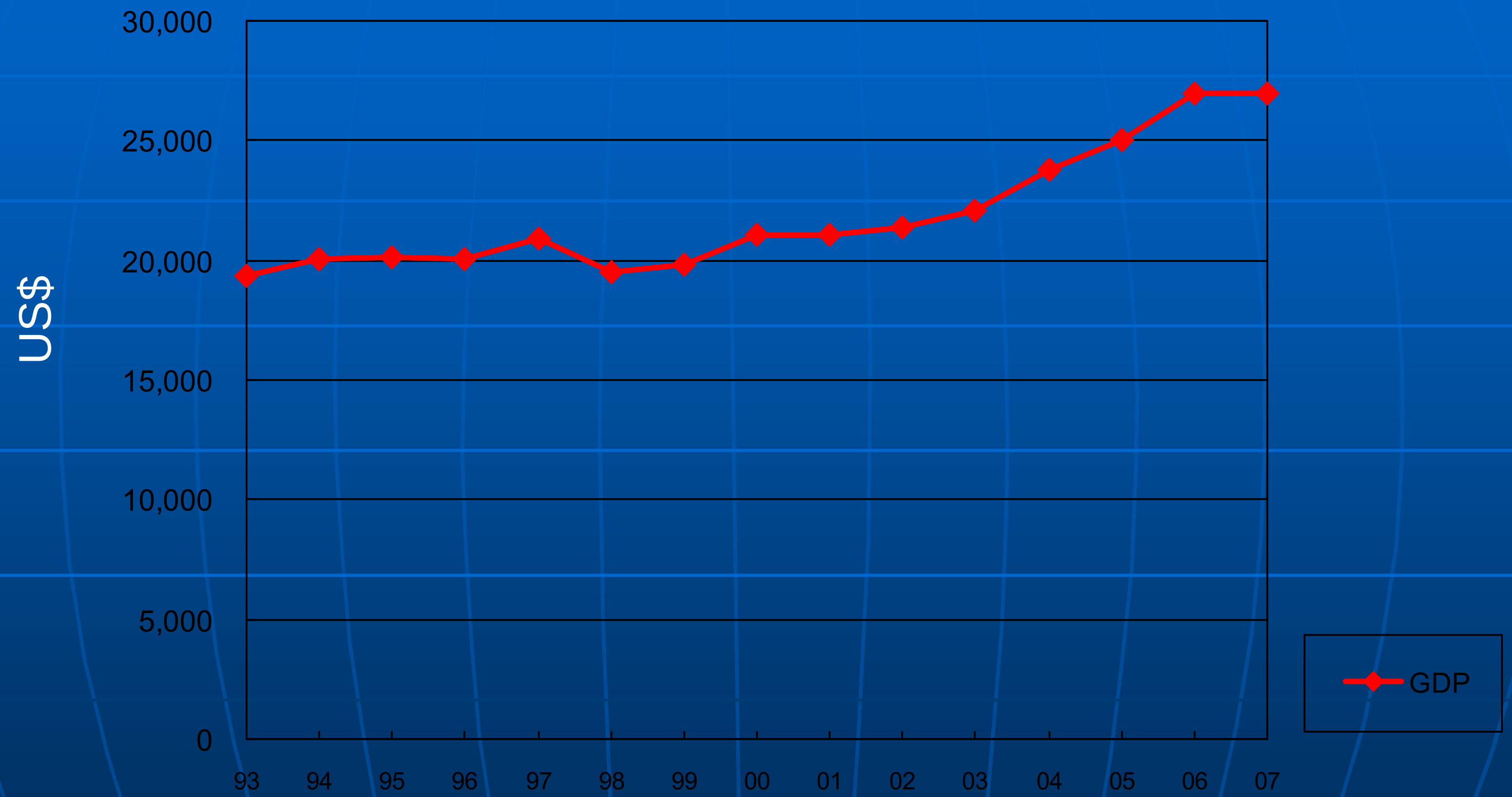
Total Telecom Services Revenue



Full-time telecommunication staff



GDP and Services contribution



Service contribution :

Year	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07
%	82.3	84.2	84.7	85.2	85.9	85.7	86.1	86.5	87.3	88.3	89.2	89.9	90.6	91.3	91.3

Thank you